RECORD OF PROCEEDINGS
A session of the Broadband Equity Sub-Committee was held at Washington Street Education Center, 500 West Washington Street, 100 Building, Board Room, Chelsea, MI 48118, on Monday April 16, 2018.

The meeting was called to order by Barb Fuller at 2:00 p.m.

MEMBERS PRESENT:
Andy Brush, Washtenaw County IT
Michelle Deatrick, Washtenaw County Commissioner
Barb Fuller, Sub-Committee Chair, Sharon Township and citizen representative
Theresa Herron, Manchester Schools representing secondary education
Kyle Mazurek, Comcast and serving as Industry broadband liaison
Scott Wooster, Chelsea Schools representing secondary education/IT expert

STAFF PRESENT:
Zach Neal

MEMBERS ABSENT:
Karen Domino, WISD and Education/Technology Expert
Teresa Gillotti, Washtenaw County Office of Community and Economic Development
Ben Fineman, Sub-Committee Vice-Chair, President of the Michigan Broadband Cooperative and Broadband Expert
Kent Martinez-Kratz, Washtenaw County Commissioner
Alicia Ping, Washtenaw County Commissioner
Conan Smith, Washtenaw County Commissioner

GUEST PANELISTS:
Dawn Putnam (Chelsea High School)
Mike Lott (Chelsea Middle School)
Jaime Woodring (Manchester Middle/High School)

CITIZEN PUBLIC PARTICIPATION:
There was no public participation.

Education and the Impact of Broadband Access on Classroom Instruction:
The Broadband Subcommittee was joined by Dawn Putnam of Chelsea High School (English teacher), Mike Lott of Chelsea Middle School (6-7-8th grades) and Jaime Woodring of Manchester Middle/High School (German language 9-12 and 10th grade English.) Theresa Herron of Manchester Schools and Sub-Committee member also provided observations in her role as a special needs educator.

Mike Lott: Chelsea has 1:1 ratio for students and iPads. Middle School age and older gets to take these devices home with them. Students who do not have internet access at home cannot do everything that other students are able to do on the iPads. Stated that if everyone had equal coverage the classroom instruction would change. The school has changed immensely in the last 5 years and the amount of technology being used is normal and students are used to it. When asked about if it is more difficult to grade knowing that not all students have the same opportunities Mike stated that he makes sure that all students have an opportunity to complete the work somehow.
Dawn Putnam: In addition to being a high school teacher Dawn is also a parent of 6th and 8th grade students in the Chelsea school district. She stated that she has internet access at home but spends time troubleshooting if it does not work properly. Her home internet access is unreliable and the bandwidth results in family members getting “kicked off” if too many of them are trying to work at the same time. The iPads contain online textbooks that have “homework help” which normal textbooks do not provide. Dawn stated some of the assignments such as “I-Movie” projects are assigned but not all features can be accessed without broadband. At the beginning of each term Dawn gives out a survey to see which students have Wi-Fi access and she searches for work-arounds for those who do not. About half of her students from her last class of the day had some sort of internet issue (No access, bad signal, lack of bandwidth). Dawn stated that Chelsea has “Zero hour” before school where teachers are in the school and students can come in to work. This arrangement doesn’t serve students that ride the bus or do not drive because they cannot get there on time to utilize Zero hour. Parents without broadband access get frustrated, because they may not be able to check grades, see assignments or just keep up on the class in general.

Jaime Woodring: Manchester has a 1:1 ratio for students and iPads K-4th and Chromebooks 7th-12th. The older students can take them home but they must pay for insurance to be able to do so. In Manchester, the annual insurance costs $35 each / $100 max per family. In Chelsea the annual premium in $20 with a $25 deductible. Those students eligible for the Federal free school lunch program are exempt from having to purchase insurance. If the student doesn’t pay for the insurance they must check the device out each day. Jamie stated that she ends up using class time for the students to use the Chromebooks and she estimated that between 1/3-1/2 of the students aren’t able to take them home or don’t have Wi-Fi access. In her 3 years at Manchester Jamie has not bought class-sets of textbooks for her students. She remarked that families struggle with having to keep track of multiple logins and passwords. Teachers expect parents to monitor their children’s grades, attendance, completion and submission of classroom assignments and test/quiz scores via the internet. When parents do not or cannot, it creates tension and frustration between the teachers and the parents. Jaime remarked that she maintains a collection of hard copy books for “choice reading.”

General Comments

- Extra-curricular activities compete with after school broadband internet access time.
- Students with broadband internet challenges have been observed to work on assignments for classes other than the one in which they are sitting.
- If all students had broadband internet access at home it would transform lesson planning and enrich the curriculum immeasurably.
- Data limits and bandwidth are obstacles for students at home.
- Parents that aren’t tech savvy aren’t prepared to utilize the internet tools associated with supporting today’s students and keeping up with student performance and school activities.
- The “flipped classroom” has variations. One scenario is where students observe the lecture at home and receive explanations in the classroom. Another is where the students watch the lecture in the classroom while the teacher circulates and provides individualized support.
- Interestingly, stigma is not an issue for students without broadband internet access at home because it is common in rural areas.
- Teachers have to become tech-savvy to create equitable work-arounds and to troubleshoot compatibility issues between school and home.
- Collaborative learning is hindered by lack of universal broadband internet access.
• Virtual Reality goggles allow students to take virtual field trips; e.g. deep sea diving, visiting the Louvre in Paris or observing an autopsy.

Discussion:
• Kyle Mazurek asked Scott Wooster if any providers had come forward to help the schools with student internet access challenges and Scott answered “no.” Theresa Herron stated that dual enrollment in secondary school courses and college classes is done online at no cost to the student. High school students can earn college credit in this way. This becomes difficult if the student does not have broadband access. Scott Wooster mentioned that the use of this technology and the responsibility of coming up with alternative lessons for students is a tremendous burden on the teachers. Andy Brush mentioned that there are many reasons surrounding access that students would not be able to complete their homework.
• Scott Wooster remarked that broadband internet access enables students to engage in “credit recovery” for classes they have failed or missed. Future possibilities include the ability for online classes where the teacher may be off-campus. This would expand the class offerings by making it possible for a student to take a class that is offered in another school district but not in theirs. He also pointed out that these innovations are complicated and expensive to implement.
• It was generally agreed that email literacy is an important skill. Phrasing for clarity, attention to tone, punctuation and grammar are areas that would benefit from instruction.
• Text books are becoming an anachronism. Online content is limitless and hyperlinks expand the resources available. It was acknowledged that not all content is free, PDF capability is essential and the hyperlinks only work if you are online.

ASSIGNMENTS

May 21, 2018 – Barb Fuller, Lead Sub-Cmte Member
Zoning, Permitting, Master Plans and Ordinances
Barb: invite a developer, a planner and a Road Commission permitting representative
Michelle: invite Brian Marl, Mayor of the City of Saline
Kyle: invite a broadband provider

Agriculture Day, postponed – Commissioner Deatrick, Lead Sub-Cmte Member
At this time Agriculture Day will be pushed back into later in the year because of the busy schedule of local farmers around planting season. The exact session for this topic was not determined.

June 18, 2018 - Barb Fuller, Lead Sub-Cmte Member
Local Broadband Initiatives
Barb: invite Mike Moran, Ann Arbor Twp Supervisor; Peter Psarouthakis, Sharon Twp Supervisor; Lisa Moutinho representing the Manchester Twp experience
Ben Fineman: representing the Lyndon Twp experience

July 16, 2018 – Andy Brush, Lead Sub-Cmte Member
E-Government Services
Andy will consider and advise about who to invite as panelists.

August 20, 2018 – Barb Fuller, Lead Sub-Cmte Member
Public Policy Impacting Broadband Access & Equity
Barb: invite State Representative Donna Lasinski; Larry Merrill, Michigan Townships Association; Kirk Profit, Lobbyist; Lisa Dedden-Cooper, AARP Manager of Advocacy
NEW BUSINESS

Work Plan Schedule – Revised and included at the end of these minutes

Adjournment:
The meeting adjourned at 3:37 p.m.

Next Meeting:
Monday, May 21, 2018, 2:00 – 3:30 p.m. at the Washington Street Education Center, 500 West Washington Street, 100 Building, Board Room, Chelsea, MI 48118.

Revised Workplan Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Focus / Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon</td>
<td>Sept 18, 2017</td>
<td>2:00 PM</td>
<td>Organizational, Elect Officers, Approve By-Laws</td>
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<tr>
<td>Mon</td>
<td>Oct 16, 2017</td>
<td>2:00 PM</td>
<td>Round Table on Misc. Topics</td>
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<tr>
<td>Mon</td>
<td>Nov 20, 2017</td>
<td>2:00 PM</td>
<td>Review and Approve Workplan &amp; Timeline</td>
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<tr>
<td>Mon</td>
<td>Dec 18, 2017</td>
<td>2:00 PM</td>
<td>Special Presentation: Broadband Coverage in Washtenaw County Speaker: Dan Manning, Connect Michigan</td>
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<tr>
<td>Mon</td>
<td>Jan 8, 2018</td>
<td>2:00 PM</td>
<td>Topic: Incumbent Carriers</td>
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<tr>
<td>Mon</td>
<td>Feb 12, 2018</td>
<td>2:00 PM</td>
<td>Topic: Economic Development &amp; Talent Attraction/Retention</td>
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<tr>
<td>Mon</td>
<td>Mar 19, 2018</td>
<td>2:00 PM</td>
<td>Working Session</td>
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<tr>
<td>Thurs</td>
<td>Apr 5, 2018</td>
<td>6:30 PM</td>
<td>Present Status Report to BOC Working Session</td>
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<tr>
<td>Mon</td>
<td>Apr 16, 2018</td>
<td>2:00 PM</td>
<td>Topic: K-12 Education and the impact of Broadband Access on Classroom Instruction and Student Success</td>
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<tr>
<td>Mon</td>
<td>May 21, 2018</td>
<td>2:00 PM</td>
<td>Topic: Broadband Expansion: Zoning, Permitting, Master Plans and Ordinances</td>
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<tr>
<td>Mon</td>
<td>June 18, 2018</td>
<td>2:00 PM</td>
<td>Topic: Local Broadband Initiatives: Lyndon Twp, Dexter Twp, Webster Twp, Ann Arbor Twp, Sharon Twp &amp; Manchester Twp</td>
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<td>Mon</td>
<td>July 16, 2018</td>
<td>2:00 PM</td>
<td>Topic: E-Government Services</td>
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<td>Mon Aug 20, 2018</td>
<td>2:00 PM</td>
<td>Topic: Legislation Impacting Broadband</td>
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<tr>
<td>Mon Sept 17, 2018</td>
<td>2:00 PM</td>
<td>Focus: Draft Final Report and Recommendations for BOC's consideration</td>
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<tr>
<td>Mon Oct 15, 2018</td>
<td>2:00 PM</td>
<td>Focus: Review &amp; Comment - Draft Final Report for BOC</td>
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<tr>
<td>Fri Oct 19, 2018</td>
<td>5:00 PM</td>
<td>Submit Final Report to BOC</td>
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<tr>
<td>Wed Nov 7, 2018</td>
<td>6:30 PM</td>
<td>Present Final Report &amp; Recommendations to BOC</td>
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<tr>
<td>Mon Nov 19, 2018</td>
<td>2:00 PM</td>
<td>Working Session if needed</td>
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<tr>
<td>Mon Dec 31, 2018</td>
<td>2:00 PM</td>
<td>Bband Equity Sub-Committee Sunsets</td>
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